

34. [NEW] The medication of Claim 1, wherein the modulator of adenosine receptor activity is selected from the group consisting of fertilization promoting peptide, adenosine, and a specific adenosine receptor agonist.
35. [NEW] The medication of Claim 1, wherein the modulator of adenosine receptor activity is selected from the group consisting of fertilization promoting peptide, adenosine, and a combination of fertilization promoting peptide and adenosine.
36. [NEW] The medication of Claim 1, comprising a combination of calcitonin and fertilization promoting peptide.
37. [NEW] The medication of Claim 1, comprising a combination of calcitonin, angiotensin II and fertilization promoting peptide.
38. [NEW] The medication of Claim 1, comprising a combination of calcitonin, angiotensin II, fertilization promoting peptide, and adenosine.
- a² 39. [NEW] The medication of Claim 1, wherein the calcitonin is selected from the group consisting of salmon calcitonin, porcine calcitonin, and human calcitonin.
40. [NEW] The medication of Claim 1, further comprising a pharmaceutically-suitable carrier.
41. [NEW] A composition of matter treating infertility in humans, the composition comprising a combination of two or more agents selected from the group consisting of calcitonin, angiotensin II, and a modulator of adenosine receptor activity.
42. [NEW] The composition of Claim 41, wherein the modulator of adenosine receptor activity is selected from the group consisting of fertilization promoting peptide, adenosine, and a specific adenosine receptor agonist.

43. [NEW] The composition of Claim 41, wherein the modulator of adenosine receptor activity is selected from the group consisting of fertilization promoting peptide, adenosine, and a combination of fertilization promoting peptide and adenosine.
44. [NEW] The composition of Claim 41, comprising a combination of calcitonin and fertilization promoting peptide.
45. [NEW] The composition of Claim 41, comprising a combination of calcitonin and adenosine.
46. [NEW] The composition of Claim 41, comprising a combination of calcitonin and angiotensin II.
47. ^{43?} [NEW] The composition of Claim 41, comprising a combination of fertilization promoting peptide and adenosine.
48. [NEW] The composition of Claim 41, comprising a combination of fertilization promoting peptide and angiotensin II.
49. [NEW] The composition of Claim 41, comprising a combination of angiotensin II and adenosine.
50. [NEW] The composition of Claim 41, comprising a combination of calcitonin, angiotensin II and fertilization promoting peptide.
51. [NEW] The composition of Claim 41, comprising a combination of calcitonin, angiotensin II, fertilization promoting peptide, and adenosine.

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52. [NEW] The composition of Claim 41, further comprising a pharmaceutically-suitable carrier.
53. [NEW] The composition of Claim 52, wherein the carrier is suitable for topical application.
54. [NEW] The composition of Claim 53, comprising from about 100 nM to about 100 μ M fertilization promoting peptide, from about 5 ng/ml to about 5 μ g/ml salmon calcitonin, and from about 1 nM to about 1 μ M angiotensin II.
55. [NEW] The composition of Claim 53, comprising from about 10 μ M to about 10 mM adenosine, from about 5 ng/ml to about 5 μ g/ml salmon calcitonin, and from about 1 nM to about 1 μ M angiotensin II.
56. [NEW] The composition of Claim 53, comprising from about 100 nM to about 100 μ M fertilization promoting peptide, from about 200 ng/ml to about 200 μ g/ml human calcitonin, and from about 1 nM to about 1 μ M angiotensin II.
57. [NEW] The composition of Claim 53, comprising from about 10 μ M to about 10 mM adenosine, from about 200 ng/ml to about 200 μ g/ml human calcitonin, and from about 1 nM to about 1 μ M angiotensin II.
58. [NEW] A composition of matter comprising human sperm admixed with a combination of two or more agents selected from the group consisting of calcitonin, angiotensin II, and a modulator of adenosine receptor activity.
59. [NEW] The composition of Claim 58, wherein the modulator of adenosine receptor activity is selected from the group consisting of fertilization promoting peptide, adenosine, and a specific adenosine receptor agonist.

60. [NEW] The composition of Claim 58, wherein the modulator of adenosine receptor activity is selected from the group consisting of fertilization promoting peptide, adenosine, and a combination of fertilization promoting peptide and adenosine.
61. [NEW] The composition of Claim 58, comprising a combination of calcitonin and fertilization promoting peptide.
62. [NEW] The composition of Claim 58, comprising a combination of calcitonin, angiotensin II and fertilization promoting peptide.
63. [NEW] The composition of Claim 58, comprising a combination of calcitonin, angiotensin II, fertilization promoting peptide, and adenosine.
64. [NEW] The composition of Claim 58, further comprising a pharmaceutically-suitable carrier.
65. [NEW] The composition of Claim 58, comprising from about 25 nM to about 500 nM fertilization promoting peptide.
66. [NEW] The composition of Claim 58, comprising from about 12.5 nM to about 500 nM fertilization promoting peptide.
67. [NEW] The composition of Claim 58, comprising from about 0.5 μ M to about 100 μ M adenosine.
68. [NEW] The composition of Claim 58, wherein the calcitonin is selected from the group consisting of salmon calcitonin at a concentration of from about 0.5 ng/ml to about 150 ng/ml and human calcitonin at a concentration of from about 2 ng/ml to about 1,000 ng/ml.

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69. [NEW] The composition of Claim 58, comprising from about 0.1 nM to about 100 nM angiotensin II.
70. [NEW] The composition of Claim 58, wherein the composition is frozen.
71. [NEW] The composition of Claim 58, wherein the composition has been frozen and thawed.
72. [NEW] A method of promoting fertility in mammals, the method comprising administering to a mammal, simultaneously, sequentially, or separately, a fertility-enhancing amount of two or more agents selected from the group consisting of calcitonin, angiotensin II, and a modulator of adenosine receptor activity.
73. [NEW] The method of Claim 72, wherein the modulator of adenosine receptor activity is selected from the group consisting of fertilization promoting peptide, adenosine, and a specific adenosine receptor agonist.
74. [NEW] The method of Claim 72, wherein the modulator of adenosine receptor activity is selected from the group consisting of fertilization promoting peptide, adenosine, and a combination of fertilization promoting peptide and adenosine.
75. [NEW] The method of Claim 72, wherein calcitonin and fertilization promoting peptide are administered.
76. [NEW] The method of Claim 72, wherein calcitonin, angiotensin II and fertilization promoting peptide are administered.
77. [NEW] The method of Claim 72, wherein calcitonin, angiotensin II, fertilization promoting peptide, and adenosine are administered.

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78. [NEW] The method of Claim 72, wherein a calcitonin selected from the group consisting of salmon calcitonin, porcine calcitonin, and human calcitonin is administered.
79. [NEW] A method of *in vitro* fertilization or artificial insemination, the method comprising adding to mammalian sperm, simultaneously, sequentially, or separately, a capacity-enhancing amount of two or more agents selected from the group consisting of calcitonin, angiotensin II, and a modulator of adenosine receptor activity.
80. [NEW] The method of Claim 79, wherein the modulator of adenosine receptor activity is selected from the group consisting of fertilization promoting peptide, adenosine, and a specific adenosine receptor agonist.
81. [NEW] The method of Claim 79, wherein the modulator of adenosine receptor activity is selected from the group consisting of fertilization promoting peptide, adenosine, and a combination of fertilization promoting peptide and adenosine.
82. [NEW] The method of Claim 79, wherein calcitonin and fertilization promoting peptide are added.
83. [NEW] The method of Claim 79, wherein calcitonin, angiotensin II and fertilization promoting peptide are added.
84. [NEW] The method of Claim 79, wherein calcitonin, angiotensin II, fertilization promoting peptide, and adenosine are added.
85. [NEW] The method of Claim 79, wherein a calcitonin selected from the group consisting of salmon calcitonin, porcine calcitonin, and human calcitonin is added.
86. [NEW] A method of stimulating capacitation of mammalian sperm, the method comprising